



Organizational Options for the Future Aerospace Force

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We already have a Space Force—it is the Air Force.

—Vice Adm Herbert A. Browne
Deputy Commander in Chief
US Space Command

ADDRESSING THE FUTURE of aerospace power in the twenty-first century, F. Whitten Peters, secretary of the Air Force, states that the Air Force “views the flight domains of air and space as a seamless operational medium. The environmental differences between air and space do not separate the employment of aerospace power within them.”¹

Critics, however, disagree and have called for a reorganization of the military services through the creation of a separate Space Force. Some members of Congress seek to create a single voice for space, consolidating all Department of Defense (DOD) space activities. Furthermore, these critics say that a consolidated Space Force will improve visibility of space programs, increase the space budget, eliminate redundancy, and promote development of space professionals. They also suggest that a new organization will advance space war-fighting capabilities and enhance space support to the war fighter.

Although well conceived, the pursuit of a new organization dedicated to space is premature. Based on historical precedent of past DOD organizations, space does not meet the test for independence. Reorganization does not address all of the critics’ concerns, and in some cases may have the opposite effect. Reorganization will incur significant overhead

expenditures, further stressing limited DOD resources.

Critics argue that the Air Force mission has reached a crossroads of air and space operations. Pointing to the post-World War II reorganization that created a new organization with new capabilities, some in Congress believe the time has come for the Air Force to relinquish its claim to space—yielding to a new organization dedicated to space power. Supporters of integrating air and space, however, argue that the current state of US space capabilities is more akin to the pre-World War I era. Today, the space component of the aerospace mission is defined in terms of supporting terrestrial missions: surveillance, targeting, communications, and navigation. The focus of this effort is on earthbound missions for the foreseeable future. When military operations become concerned with effects in space, then they may warrant the establishment of a Space Force. Until then, the integration of space-support missions with existing Air Force infrastructure and capabilities is the more efficient organizational model.

This article argues a point that may have serious ramifications for DOD’s structure: the US military mission in space has not sufficiently evolved to warrant the establishment of a separate military service for space operations.

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The US Space Mission

The United States is the world leader in the exploration and use of space. This leadership role will be maintained through a strong, stable, and balanced national space program that serves the nation's goals for security, foreign policy, economic growth, environmental stewardship, and scientific and technical excellence. Access to and use of space is central for preserving peace and protecting US national security as well as civil and commercial interests.² The goals of the US space program include strengthening and maintaining the national security of the United States and promoting international cooperation to further US domestic, national security, and foreign policies.³

Current US Space Objectives

Current national space objectives require supporting a strong, stable, and balanced national space program that serves our goals in national security, foreign policy, economic growth, environmental stewardship, and scientific and technical excellence. Access to and use of space are fundamental to preserving peace and protecting US national security as well as civil and commercial interests. Goals of this program, as they pertain to the US military, are to strengthen and maintain the national security of the United States and to promote international cooperation to further US domestic, national security, and foreign policies.

The United States is committed to the exploration and use of space by all nations for peaceful purposes and for the benefit of all humanity. "Peaceful purposes," as understood by US policy makers, allow for defense and intelligence-related activities in pursuit of national security and other goals. The United States considers the space systems of any nation to be that nation's property, which can be used with free right of passage in space without interference. Purposeful interference with space systems is viewed as an infringement of national sovereignty. In this respect, the United States government will maintain and coordinate separate national se-

curity and civil space systems to accommodate different needs.⁴

National security guidelines stipulate that the United States will conduct space activities necessary for national security; this includes supporting our inherent right of self-defense and our defense commitments to allies and friends. Such activities include deterring; warning; defending against enemy attack, if necessary; and assuring that hostile forces cannot prevent our own use of space. The United States also has the right to counter space systems and services used for hostile purposes, to enhance operations of US and allied forces, and to ensure our ability to conduct military- and intelligence-related space activities. The goal is to satisfy military and intelligence requirements during peacetime or conflict.

More specifically, defense-sector guidelines require that DOD shall maintain the capability to execute the mission areas of space support, force enhancement, space control, and force application. DOD, as launch agent for both the defense and intelligence sectors, will maintain the capability to evolve and support those space transportation systems, infrastructure, and support activities necessary to meet national security requirements. It will also be the lead agency for improvement and evolution of the current expendable-launch fleet, including appropriate technology development.

Future National Space Objectives

Future national space objectives mandate that DOD will pursue integrated satellite control and continue to enhance the robustness of its satellite-control capability. DOD will continue to coordinate with other departments and agencies, as appropriate, to foster the integration and interoperability of satellite control for all governmental space activities. The United States will develop, operate, and maintain space-control capabilities to ensure freedom of action in space and, if directed, deny such freedom of action to adversaries. It will maintain and modernize space surveillance and associated battle-management command, control, communications, computers, and intelligence to effectively detect,

track, categorize, monitor, and characterize threats to US and friendly space systems and contribute to the protection of US military activities. It will also pursue a ballistic missile defense program to provide enhanced theater missile defense capability, a national missile defense deployment readiness program, and an advanced technology program to provide options for improvements to planned and deployed defenses.⁵

The United States will consider and formulate policy positions on arms control and related measures governing activities in space and will conclude agreements on such measures only if they are equitable, they are effectively verifiable, and they enhance the security of the United States and our allies. The Arms Control and Disarmament Agency (ACDA) is the principal agency within the Federal Government for arms control matters. ACDA, in coordination with DoD, DCI [Director of Central Intelligence], Department of State, DoE [Department of Energy], and other agencies will identify arms control issues and opportunities related to space activities and examine concepts for measures that support national security objectives.⁶

Building an Independent Space Force: Requirements and Obstacles

There are several options or alternatives to consider in creating a new independent Space Force. Each option must be studied in light of its requirements, responsibilities, and obstacles.

Option One: A US Space Force

As conceived by those proposing an independent US Space Force, this would require establishing a new military department. Modeled on the US Air Force's evolution to an independent military department from the US Army Air Forces, the new Space Force would be DOD's single space entity. All space assets—personnel, space systems, and ground-based support systems—would be transferred to the Space Force. This restructuring would

require the development of organic logistic and support capabilities.

Existing space procurement, including personnel as well as operation and maintenance (O&M) costs, would transfer to the new Space Force budget. All related functions (headquarters staff and secretariat at the level of the Office of the Secretary of Defense [OSD]; field-support agencies; expanded Joint Staff; Pentagon offices; research, development, test, and evaluation [RDT&E]; programs for space-specific research; and increased military and civilian manning) would fall under the purview of a US Space Force.

Such an organization would focus DOD space operations—but with prohibitive implementation and operational overhead costs. As the junior service, the Space Force would probably have less political clout than other service components, facing stiff challenges to prove its ability to develop, field, and successfully demonstrate its independent war-fighting capability. The organization would complicate the new focus on joint operations by adding a fifth service—adding to the complexity of integrating space into joint operations. Stove-piped acquisition processes and operational control, with an emphasis on space control versus space exploitation, would further complicate the joint mission. The Space Force would lack the in-depth, war-fighting perspective and experience found in the other services. This fact, in combination with the continuing requirement to provide space support to the other service components, would hinder further maturing as an independent organization. Finally, and most significantly, the development of an independent Space Force might signal to the rest of the world that the United States intends to weaponize space.

Option Two: A US Space Corps

With this option, the space mission might be better served through the establishment of a Space Corps, modeled on the two-hundred-year-long evolution of the US Marine Corps in both organization and function. The Marine Corps provides rapid-deployment forces in support of naval operations and relies on

the Navy to provide all logistic and administrative support. The Space Corps would become DOD's single space entity within the Department of the Air Force. All DOD space assets, including personnel, space systems, and ground-based space-support systems would be transferred to this corps. This organizational structure would be able to leverage USAF logistical and support capabilities already in place and focus the Space Corps on space war fighting. Yet, there are a number of organizational issues that must be examined further.

Existing space procurement, personnel, and O&M costs would transfer to the Space Corps budget. The new organizational structure would create additional high overhead costs: a headquarters staff under the Department of the Air Force; the establishment of field-support agencies to support administrative and operational requirements; expansion of the Joint Staff and offices in the Pentagon; replication of costly RDT&E programs to conduct space-specific research; and an increase in military and civilian manning to duplicate administrative functions previously supported by other services.

Reorganization would generate other implementation costs that are difficult to quantify, such as converting and constructing administrative and RDT&E facilities. Some expenses, of course, could be estimated initially, but history suggests that actual spending would likely spiral well beyond the most liberal cost estimates.

The Space Corps would help focus DOD space operations but at a significant cost. The organization would require additional implementation and operating costs. Trade-offs among space priorities would take place within its own budget, rather than within the overall Air Force budget—as occurs with the Marine Corps and Navy. A Space Corps would complicate joint coordination by adding a fifth service—thus inhibiting integration of space for joint operations. As an organization within the USAF, a Space Corps would likely increase interservice rivalry. Finally, establishing a Space Corps would limit exposure of space professionals to DOD's war fighters. No

service has any operators with space war-fighting experience, as this capability does not exist today within DOD.

Option Three: ASD/SPACE/Major Force Program-12

A US Space Command/Major Force Program-12 (USSPACECOM/MFP-12) option, modeled on the US Special Operations Command (USSOCOM) and the Assistant Secretary of Defense Special Operations/Low-Intensity Conflict organization created in 1986, would gain procurement authority for space operations. Under this model, each service would retain responsibility over service-specific space capabilities. The commander in chief of Space Command (CINCSpace) and the assistant secretary of defense for space (ASD/SPACE) would coordinate joint requirements and training, overseeing space-peculiar procurement under MFP-12. USSPACECOM would become OSD's space coordinating agent, with CINCSpace and ASD/SPACE taking on additional responsibilities, while the services retain space assets and supporting responsibilities.

There are organizational issues for the USSPACECOM/MFP-12 structure to resolve. Obviously, an ASD/SPACE position in OSD, along with a Space staff, would have to be established. In addition, existing USSPACECOM personnel and funding would have to expand to take on new responsibilities. Overhead costs, in the form of new personnel for the ASD/SPACE staff, a USSPACECOM staff to mirror that of USSOCOM, and the establishment of MFP-12 procurement offices must be factored into the new organization's overall costs. Memoranda of agreement (MOA) with each service, defining what space-peculiar procurement projects would fall under USSPACECOM's purview, would be essential but far more difficult to quantify than the other issues listed above. The same is true for interoffice cooperation agreements with the National Reconnaissance Office, the Ballistic Missile Defense Organization, and the National Security Space Architect.

USSPACECOM/MFP-12 would carry little weight in DOD policy discussions, and

ASD/SPACE and CINCSpace would have less influence than the service secretaries. This would place the organization at a considerable disadvantage in internal and congressional battles. The lack of a congressional subcommittee focusing on space would be an additional major disadvantage, and coordination problems would exist due to the lack of an established planning, programming, and budgeting system process. USSPACECOM would be forced to rely on the services for many requirements and would have to negotiate MOAs as DOD developed new technologies and new procurement programs with space components. Trade-offs would occur within the USSPACECOM budget rather than in the larger USAF budget.

This organization would also inhibit joint operations with stovepiped acquisition processes and operational-control issues. The emphasis would be placed on independent space-war-fighting capabilities at the expense of space exploitation and support to the joint war fighter. Finally, USSPACECOM would further differentiate the space community from other war-fighting communities, thus moving away from effective joint operations.

Option Four: An Aerospace Force

Here, aerospace integration focuses DOD space efforts through an evolutionary process within the existing force structure of the US Air Force. It requires few new overhead costs, and it benefits from organizational strength that is already well established. Aerospace integration would improve DOD space operations by further institutionalizing USAF space support for joint war fighting. This organizational structure gives space-control research and doctrine development a firm foundation from which to expand, benefiting from proven Air Force concepts of air superiority as well as research and development efforts spanning both air and space applications.

Aerospace integration seeks the proper mix of air, space, ground, and information capabilities, building a professional aerospace cadre and instilling within it an aerospace mind-set that includes war-fighting and sup-

port functions throughout the aerospace continuum. It will be capable of addressing congressional concerns about DOD investments in space, seeking to advance both space control and space exploitation.

Conclusion

Independence is not appropriate for space today. The Air Force was established as an independent force when airpower had at least reached adolescence—only after combat-tested technology, doctrine, and leadership were well established. Military space is still in its infancy, with no unique mission, untested doctrine and personnel, and unfinished technology.

Military space capabilities contribute to all levels of military activity and conflict but have yet to evolve into a full-spectrum, war-fighting force. The US experience suggests that space should be allowed to mature within an established parent organization to determine whether it can develop and refine a unique war-fighting capability.

Aerospace integration is the most appropriate model for managing space today. This model allows for development of space capabilities within an established organization—like the US Army Air Corps of the early 1940s. It also concentrates space spending on people and systems rather than on overhead. Historical defense reorganizations and congressional goals suggest that the aerospace-integration approach is the sensible option for best managing the military space mission today. □

Notes

1. F. Whitten Peters, *The Aerospace Force: Defending America in the 21st Century* (Washington, D.C.: Department of the Air Force, 2000).

2. The White House, National Science and Technology Council, Fact Sheet on National Space Policy, 19 September 1996.

3. Ibid.

4. Ibid.

5. Ibid.

6. Ibid.